

**U.S. ATLAS Research Program
Computing Software
FYs03/04 Milestone Schedule**

ID	WBS	Milestone	Baseline Date	Forecast Date	Actual Date	2003				2004				2005						
						4	1	2	3	4	1	2	3	4	1	2	3	4	1	
41		Evaluate Scope of Seal Integration	Wed 6/30/04	Wed 6/30/04	NA															
42		Physics Analysis Tools Prototype	Wed 6/30/04	Wed 6/30/04	NA															
43		Integration of Seal plug-in Mechanism	Thu 9/30/04	Thu 9/30/04	NA															
44		Synchronize Gaudi Release with LHCB	Thu 9/30/04	Thu 9/30/04	NA															
45		Support Physics Analysis	Thu 9/30/04	Thu 9/30/04	NA															
46		History & Property Mech Integ with Job	Thu 12/30/04	Thu 12/30/04	NA															
47		Support for Reconstruction on Demand	Thu 12/30/04	Thu 12/30/04	NA															
48	2.2.2.2	EDM Infrastructure	Tue 10/1/02	Tue 10/1/02	NA															
52		Prototype Support for Integer Keys	Tue 9/30/03	Wed 6/30/04	NA															
53		Enforcement of RTF Recommendation	Tue 9/30/03	Sun 11/30/03	Sun 11/30/03															
54		Support for Writing out Conditions Obj	Tue 9/30/03	Tue 3/30/04	NA															
55		Performance optimizations	Tue 9/30/03	Tue 9/30/03	Tue 9/30/03															
56		Integration with Pool-Cache Manager	Tue 9/30/03	Wed 6/30/04	NA															
57		Support for Object Pool	Tue 9/30/03	Tue 9/30/03	Tue 9/30/03															
58		Proto Support for Composite, Bi-Directi	Tue 9/30/03	Tue 3/30/04	NA															
59		Multi Thread Support	Tue 12/30/03	Tue 12/30/03	Tue 12/30/03															
60		Supp for Persistent Inter-Object Relatio	Tue 12/30/03	Tue 3/30/04	NA															
61		Performance Optimizations	Tue 12/30/03	Tue 12/30/03	Tue 12/30/03															
62		Support for History Objects	Tue 3/30/04	Thu 9/30/04	NA															
63		Support for Reconstruction on Demand	Wed 3/3/04	Thu 12/30/04	NA															
64		Support for Persistent Inter-Object Rela	Wed 3/3/04	Tue 3/30/04	NA															
65		Support for Integer Keys	Wed 6/30/04	Wed 6/30/04	NA															
66		Integration with Pool-Cache Manager	Wed 6/30/04	Wed 6/30/04	NA															
67		Integrate Data Store with Physics Analy	Wed 6/30/04	Wed 6/30/04	NA															
68		Integrate CLID Database Generation w	Wed 6/30/04	Wed 6/30/04	NA															
69		Data Objects Fully Accessible from Scr	Thu 9/30/04	Thu 9/30/04	NA															
70		Support for History Objects	Thu 9/30/04	Thu 9/30/04	NA															
71		Support for Reconstruction on Demand	Thu 12/30/04	Thu 12/30/04	NA															
72	2.2.2.3	Detector Description	Tue 10/1/02	Tue 10/1/02	NA															
76		Material Services	Wed 7/30/03	Mon 6/30/03	Mon 6/30/03															
77		Full Integration of Muon System	Wed 7/30/03	Mon 6/30/03	Mon 6/30/03															

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						4	1	2	3	4	1	2	3	4	1	2	3	4	1	
78		Full Description of ATLAS Detector	Tue 9/30/03	Mon 9/1/03	Mon 9/1/03					◆										
79		"Tiny" HEP Transforms	Tue 9/30/03	Tue 9/16/03	Tue 9/16/03					◆										
80		Magnetic Field Description	Tue 9/30/03	Sat 11/15/03	Sat 11/15/03					◆										
81		Runge-Kutte Integrators	Tue 9/30/03	Mon 6/30/03	Mon 6/30/03					◆										
82		GeoG4 Conversion Available	Tue 12/30/03	Tue 12/30/03	Tue 12/30/03						◆									
83		Detect Descrip Fitted to Time Depend	Tue 3/30/04	Tue 3/30/04	NA							◆								
84		Native Geo Model Mat'l Integ Service	Tue 3/30/04	Tue 3/30/04	NA							◆								
85		Automatic Class Detection	Tue 3/30/04	Tue 3/30/04	NA							◆								
86		Accelerated Access to Geometry Tree	Tue 3/30/04	Tue 3/30/04	NA							◆								
87		Geometry Configuration Design Compl	Wed 6/30/04	Wed 6/30/04	NA								◆							
88		Native GeoModel Mat'l Integration Serv	Wed 6/30/04	Wed 6/30/04	NA								◆							
89		Geometry Configuration System Avail	Wed 6/30/04	Wed 6/30/04	NA								◆							
90	2.2.2.4	Graphics	Tue 10/1/02	Tue 10/1/02	NA	◆														
94		Integration of Graphic Tools	Tue 3/30/04	Tue 3/30/04	NA								◆							
95		Real Time Histogramm Displays for Mo	Tue 3/30/04	Tue 3/30/04	NA								◆							
96		Deployment of Graphics for use in 2004	Tue 3/30/04	Tue 3/30/04	NA								◆							
97	2.2.2.5	Analysis Tools	Tue 10/1/02	Tue 10/1/02	NA	◆														
101		Deploy Analysis Framework with Basic	Tue 3/30/04	Tue 3/30/04	NA								◆							
102	2.2.2.6	Grid Integration	Tue 10/1/02	Tue 10/1/02	NA	◆														
106		Prototype Implementation for Grid Moni	Tue 9/30/03	Wed 6/30/04	NA							◆								
107		Integration with Ganga	Tue 9/30/03	Wed 6/30/04	NA							◆								
108		Integ with Distributed File Replicatioin S	Tue 3/30/04	Tue 3/30/04	NA								◆							
109	2.2.3	Database	Tue 10/1/02	Tue 10/1/02	NA	◆														
110	ATLAS M.	ATLAS Release with POOL Based Persister	Wed 7/30/03	Wed 7/30/03	Wed 10/15/03							◆								
111	2.2.3.1	Database Services & Servers	Tue 10/1/02	Tue 10/1/02	NA	◆														
115		Prototype Access Control for Early POC	Tue 3/30/04	Tue 3/30/04	NA								◆							
116		Replication Mach for Database-Res Da	Tue 3/30/04	Tue 3/30/04	NA								◆							
117		Embedded Server Support & Extraction	Wed 6/30/04	Wed 6/30/04	NA									◆						
118		Evaluation of Distributed Oracel Deploy	Thu 9/30/04	Thu 9/30/04	NA										◆					
119	2.2.3.2	Common Data Management	Tue 10/1/02	Tue 10/1/02	NA	◆														
123	LCG M.	Initial POOL Deployment on LCG-1	Sat 7/12/03	Sat 7/12/03	Sat 7/12/03														◆	

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						4	1	2	3	4	1	2	3	4	1	2	3	4	1	
124		Initial Suite of ATLAS POOL Acceptanc	Wed 7/30/03	Tue 3/30/04	NA															
125		POOL Conversion Service Prototype D	Wed 7/30/03	Mon 6/2/03	Mon 6/2/03					◆										
126		POOL Conversion Service Ready	Wed 7/30/03	Fri 10/10/03	Fri 10/10/03					◆										
127		Athena Mechanisms for Write Control	Tue 9/30/03	Wed 10/1/03	Wed 10/1/03					◆										
128		Athena/POOL Object Issues Resolved	Tue 9/30/03	Sun 2/15/04	NA					◆										
129		Athena/SEAL Plug-In Issues Resolved	Tue 9/30/03	Fri 10/10/03	Fri 10/10/03					◆										
130		POOL Enhancements to Supp ATLAS (Tue 9/30/03	Sun 2/15/04	NA					◆										
131		POOL/SEAL Machinery Incorporated	Tue 9/30/03	Fri 11/14/03	Fri 11/14/03					◆										
132		SEAL/Athena Class ID Strategy Definer	Tue 9/30/03	Tue 3/30/04	NA					◆										
133		Athena I/Fs for Physical Placement Ctrl	Tue 9/30/03	Tue 6/1/04	NA					◆										
134		Athena/POOL Support Delivered	Tue 9/30/03	Thu 7/1/04	NA					◆										
135		Athena/POOL Supp for Write Multi Stre	Tue 9/30/03	Sun 2/15/04	NA					◆										
136		Content Definition I/F Defined	Tue 9/30/03	Tue 3/30/04	NA					◆										
137		Database Supp Sufficient	Tue 12/30/03	Tue 3/30/04	NA					◆										
138		Consistent Approach to Schema Defini.	Tue 3/30/04	Tue 3/30/04	NA					◆										
139		Content Characterization/Aggregation M	Tue 3/30/04	Tue 3/30/04	NA					◆										
140		Strategy for Transaction Granularity	Tue 3/30/04	Tue 3/30/04	NA					◆										
141		Support for Multiple Transaction Conte>	Wed 6/30/04	Wed 6/30/04	NA					◆										
142		Schema Evolution Requirements Defini	Wed 6/30/04	Wed 6/30/04	NA					◆										
143		Support for placement Control	Thu 9/30/04	Thu 9/30/04	NA					◆										
144		Test Suite for Prototype POOL Schema	Thu 9/30/04	Thu 9/30/04	NA					◆										
145		Support for Cross-Type Conversion	Thu 12/30/04	Thu 12/30/04	NA					◆										
146	2.2.3.3	Event Store	Tue 10/1/02	Tue 10/1/02	NA	◆														
147		AthenaSEAL/POOL Demonstrably Cap	Tue 9/30/03	Sun 2/15/04	NA					◆										
151		Persistent Event Header Navig Model E	Tue 9/30/03	Tue 3/30/04	NA					◆										
152		Implicit/Explicit Collection Model for ES	Tue 3/30/04	Tue 3/30/04	NA					◆										
153		Support for Collection-Level and Subsa	Tue 3/30/04	Tue 3/30/04	NA					◆										
154		Model for DC2 ESD and AOD Organiza	Tue 3/30/04	Tue 3/30/04	NA					◆										
155		Deep Copy Support for Event Extractio	Wed 6/30/04	Wed 6/30/04	NA					◆										
156		Depth-of-copy Support for Event Extrac	Thu 9/30/04	Thu 9/30/04	NA					◆										
157		Unique EDO Identification Infrastructure	Thu 9/30/04	Thu 9/30/04	NA					◆										

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						4	1	2	3	4	1	2	3	4	1	2	3	4	1	
232		Support for Nightly Builds of ATLAS S/W	Wed 7/30/03	Wed 7/30/03	Wed 7/30/03					◆										
233		Make Use of New Reconstruct.Tests project	Wed 7/30/03	Fri 12/12/03	Fri 12/12/03					◊		◆								
234		Start Regular Nightly Builds of LCG S/W	Wed 7/30/03	Sun 8/10/03	Sun 8/10/03					◆										
235		Release Version 2.0 of NICOS	Tue 9/30/03	Mon 12/1/03	Mon 12/1/03					◊		◆								
236		Continue to Provide S/W Support	Tue 9/30/03	Tue 9/30/03	Tue 9/30/03					◆										
237		Support of US ATLAS MySQL Server	Tue 9/30/03	Tue 9/30/03	Tue 9/30/03					◆										
238		Improve Informative Web Pages	Tue 9/30/03	Tue 9/30/03	Tue 9/30/03					◆										
239		Continue to Support ATLAS, LCG and assoc	Tue 3/30/04	Tue 3/30/04	NA									◊						
240		Support of Nightly Build at CERN, BNL, LCC	Tue 3/30/04	Tue 3/30/04	NA									◊						
241		Improve Appearance of Web Pages with res	Tue 3/30/04	Tue 3/30/04	NA									◊						
242		Contribution, Upgrades, and Maintenance of	Tue 3/30/04	Tue 3/30/04	NA									◊						
243		Integrate CppUnit in ATLAS Nightly Build Sy	Wed 6/30/04	Wed 6/30/04	NA															◊